

CHAPTER 4

RCWM RESPONSE OVERVIEW

4-1. Introduction. This chapter discusses the types of activities and tasks, which may be implemented during a RCWM response action and the corresponding safety and health plans and procedures, which are required.

4-2. Documents and Procedures Required on Suspect RCWM Sites.

a. Overview.

(1) This section presents information on the documentation and procedures required on a suspect RCWM site. Information regarding when a district may perform work on a RCWM site is also provided.

(2) All planned response activities in an area suspected of containing RCWM will be conducted in a manner protective of public and workers health and the environment. Prior to conducting any activities on a suspected RCWM site, approved safety and health plans and procedures are required in accordance with the 29 Feb 2000 HQDA Memorandum "Approval of Safety Submissions for Non-Stockpile Chemical Warfare Materiel Response Activities". The level of effort for these plans and procedures is dependent on site activities or tasks (i.e., the potential for encountering RCWM.) Figure 4-1 details the process for determining which safety and health plans and RCWM requirements are applicable to activities on a RCWM site.

(3) The process discussed below applies to all investigative, removal or construction activities performed at an OE or HTRW site by a district or MSC. If the site is suspected to be contaminated by RCWM, the plans and requirements discussed in sections 4-2b through f must be followed. Performing RCWM investigation and/or removal on suspect RCWM sites is the responsibility of the USAESCH OE Design Center. If the presence of RCWM is suspected at a site, the district must coordinate with USAESCH prior to beginning any on-site activities. In accordance with ER 1110-1-8153, the USAESCH is the only USACE command authorized to execute Non-Stockpile RCWM projects.

b. Site Visits. If site activities include only a site visit (walk through of the site) and no intrusive activities are planned, the only safety and health plan required is the Abbreviated Site Safety and Health Plan (ASSHP). This ASSHP must contain RCWM-specific information (i.e., what to do if a suspect RCWM item is found). Therefore, it is strongly recommended that the USAESCH ASSHP be used. The format of the ASSHP can be obtained from the OE MCX website at <http://www.hnd.usace.army.mil/oew>. Prior to the site visit, the ASSHP must be approved by the OE Safety Manager or designee, in accordance with EP 1110-1-18.

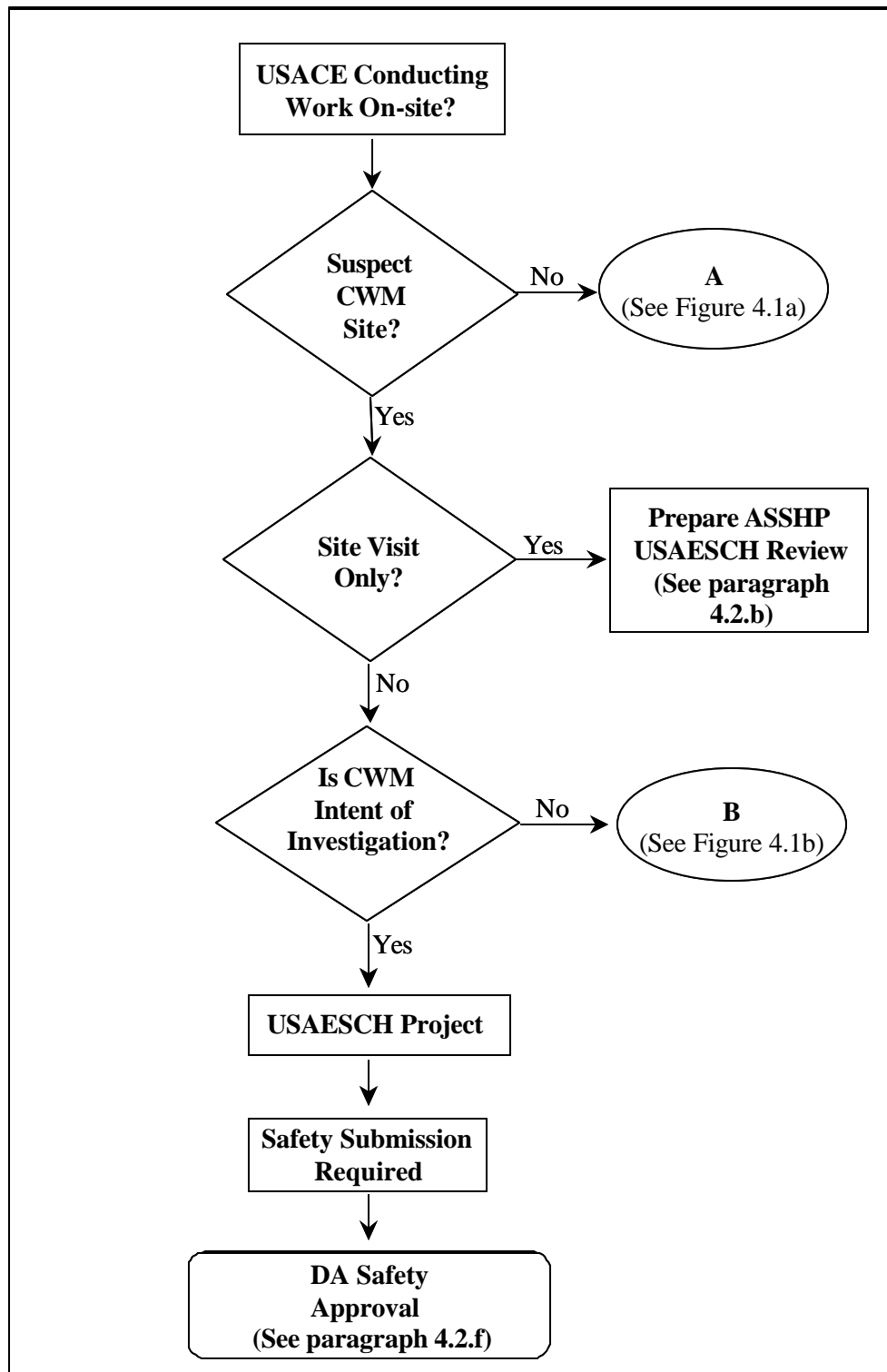


Figure 4-1. Process for Determining Which Safety and Health Plans and RCWM Requirements are Applicable to a RCWM Site

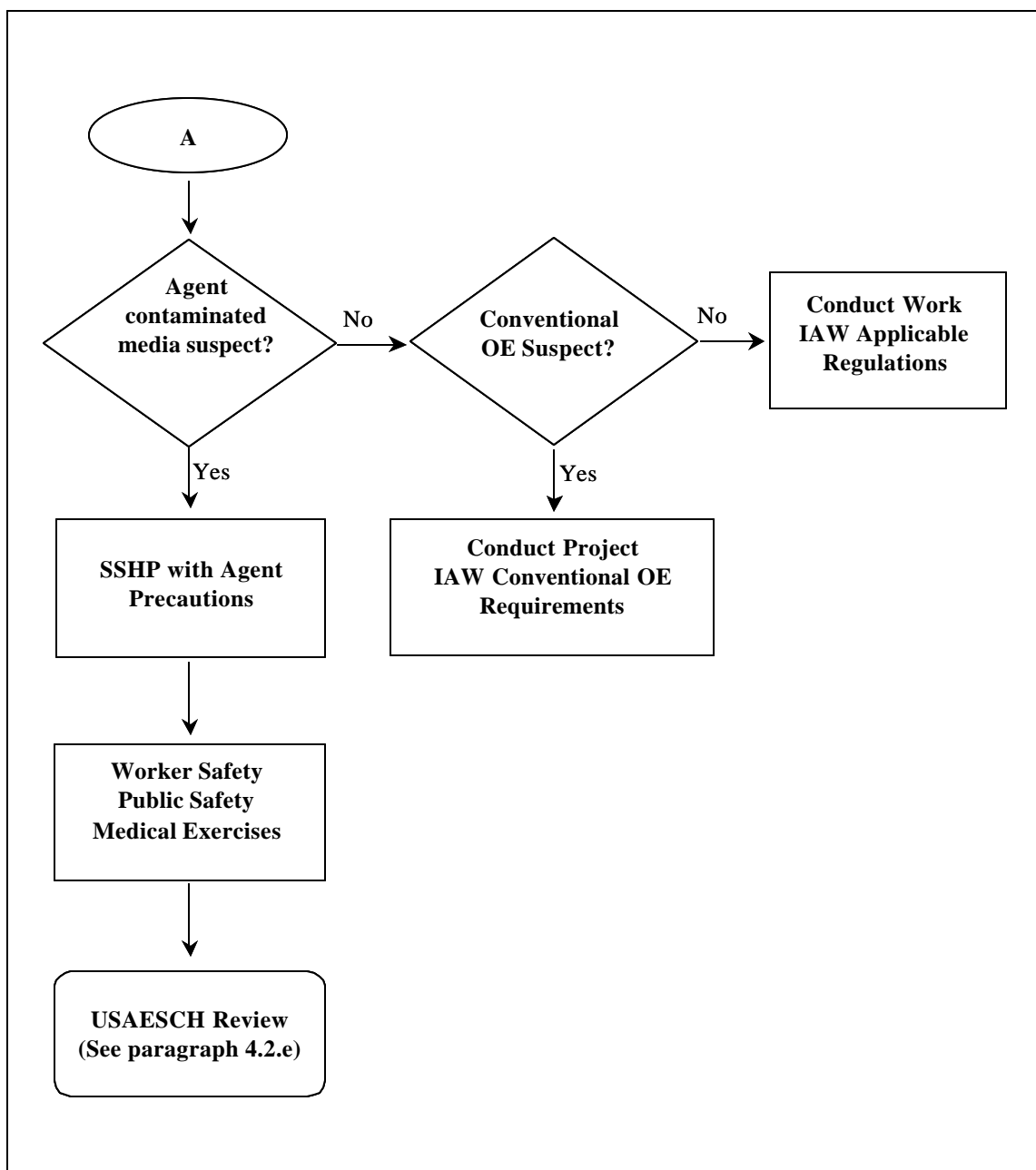


Figure 4-1a. Process for Determining Which Safety and Health Plans and RCWM Requirements are Applicable to A RCWM Site

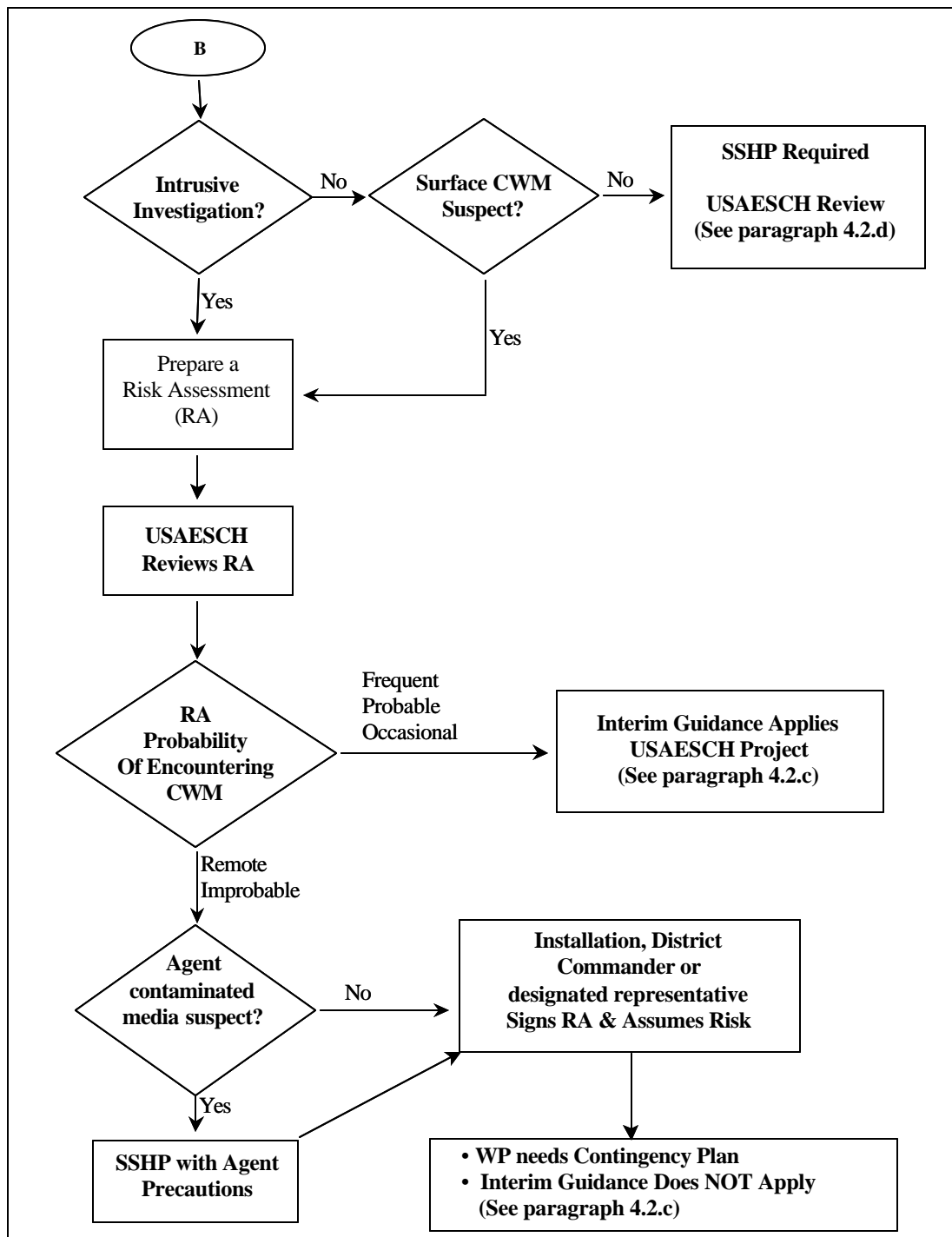


Figure 4-1b. Process for Determining Which Safety and Health Plans and RCWM Requirements are Applicable to a RCWM Site.

c. HTRW, Conventional OE or Construction Support on a Suspect RCWM Site.

(1) If the intent of the investigation on a RCWM site is not to remove the RCWM, but rather to mitigate either HTRW or conventional ordnance or to provide construction support, RCWM safety and health plans and requirements may not be required. The Interim Guidance for Biological Warfare Materiel and Non-Stockpile Chemical Warfare Materiel Response Activities (Interim Guidance) discusses safety and health requirements on a RCWM site. However, it does not specifically address those situations when construction or an environmental response action other than a RCWM investigation or removal project is conducted at a site that is suspect of containing RCWM. To determine whether the Interim Guidance applies to the non-RCWM activities, a procedure (risk assessment) was developed and is contained in a HQDA Policy Memorandum, "Applicability of Biological Warfare Materiel and Non-Stockpile Chemical Warfare Materiel Response Activity Interim Guidance", dated 19 Mar 1998. Any district or installation planning to conduct an environmental response action other than a RCWM project (i.e., investigation, removal, or construction support) on a suspect RCWM site must complete a risk assessment. The following paragraphs provide a summary of the risk assessment procedure.

(a) Determine the scope of the proposed site activities.

(b) Conduct a historical study (e.g., installation records, the PMNSCM Survey and Analysis report) and site investigation to determine previous site usage and the potential for encountering RCWM.

(c) Determine the probability of encountering RCWM during proposed site activities based on the scope of proposed site activities, previous site usage, and the potential for encountering RCWM. The probability must be documented; documentation will include the information used to determine the probability. In accordance with AR 385-10, the probability of encountering RCWM will be ranked in one of five categories:

- Frequent: Occurs very often, continuously experienced.
- Likely: Occurs several times.
- Occasional: Occurs sporadically.
- Seldom: Remotely possible; could occur at some time.
- Unlikely: Can assume will not occur, but not impossible.

(d) The completed risk assessment should be provided to USAESCH for review and comment. If the probability of encountering RCWM is determined to be seldom or unlikely, either the installation, District Commander, or designated representative must sign the risk assessment and assume the risk of conducting site activities as a non-RCWM site (i.e., the

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Interim Guidance will not be implemented). This decision must be justified and documented in writing.

(2) If the district's risk assessment determines that the probability of encountering RCWM is seldom or unlikely, the following requirements apply.

(a) The safety and health plan for the proposed site activities must include contingency plans providing for a safe and expeditious response in the event RCWM is encountered. RCWM contingency plans will have the written concurrence of USAESCH-OE-CX and the installation and/or district safety and environmental offices, EOD and TEU, and from all Army agencies responsible for the work activities.

(b) Any time suspect RCWM is encountered, all work will immediately cease. Project personnel will withdraw along cleared paths upwind from the discovery. A team consisting of a minimum of two personnel will secure the area to prevent unauthorized access. Personnel should position themselves as far upwind as possible while still maintaining security of the area.

(1) On FUDS project sites, the UXO team will notify the local POC designated in the Work Plan. The local POC will facilitate EOD response and two personnel will secure the site until EOD's arrival. If the local POC designated in the Work Plan is not the local law enforcement agency, the local POC will inform the local law enforcement agency of the discovery, if necessary. The EOD unit will notify the TEU and secure the area until TEU's arrival. After notifying the local law enforcement agencies, the local POC will notify the USAESCH Safety Group to inform them of the actions taken.

(2) On active installations, the UXO team will normally notify the Range Control Officer, Facility Engineer, Post Headquarters or POC designated in the Work Plan. After notifying the Range Control Officer or POC, the local POC will notify the USAESCH Safety Office to inform them of actions taken.

(c) If the item is confirmed to be RCWM, all investigative and/or construction work will stop until RCWM plans and procedures are in place. All of the elements of the Interim Guidance and other relevant RCWM Army regulations will be implemented before work will commence. The PMNSCM, the TEU Commander, TEU and the installation (or district safety and environmental offices) will coordinate on implementing the Interim Guidance.

(3) If the district's risk assessment determines that the probability of encountering RCWM during site activities is frequent, probable or occasional, all of the requirements in the Interim Guidance apply and USAESCH must be involved in the project. The types of safety and health plans and procedures required are dependent on whether the site activities are classified as non-intrusive, anomaly avoidance, or intrusive, as discussed in the following sections.

d. Non-Intrusive Activities. If there is a high potential of encountering RCWM items on the surface during non-intrusive activities (e.g., geophysical mapping), a Safety Submission is

required (see paragraph f(1) below). Otherwise, an SSHP will be developed and approved by USAESCH. The SSHP will include all of the elements of an HTRW SSHP. The SSHP will address the requirements of 29 CFR 1910.120(b)(4), 29 CFR 1926.65(b)(4), ER 385-1-92, EM 385-1-1, and those requirements to be published in ER 385-1-95. The SSHP should include information on the agents that are suspect to be on-site and hazard communication information.

e. Investigative and Assessment Activities Utilizing Anomaly Avoidance. When anomaly avoidance is used for site investigation and assessment (e.g., soil and water sampling, or the installation of monitoring wells) an SSHP, approved by the OE MCX, is required. Additional precautions, as stated below, must also be met:

(1) The SBCCOM Surgeon must be consulted to determine what on-site and off-site medical support requirements are required. A complete discussion is presented in Paragraph 8-8. USAESCH will be the liaison with the SBCCOM Surgeon. All requests for support must go through the USAESCH Safety Office.

(2) Public Safety. A maximum credible event (MCE) must be determined and a no significant effects (NOSE) hazard zone must be calculated. In accordance with Army regulation, intrusive activities will not be conducted when unprotected or untrained personnel are within the NOSE.

(3) Additional information on anomaly avoidance activities is published in EP 75-1-2, UXO Support During HTRW and Construction Activities.

f. Response Activities with the Intent to Uncover, Characterize and/or Remove Geophysical Anomalies.

(1) Safety Submission.

(a) When anomaly avoidance is not used for site investigation or removal activities or the suspect item cannot be detected (e.g., surface removal of RCWM or excavation when the intent is to uncover, characterize and remove geophysical anomaly), a Safety Submission is required. The Safety Submission serves as the specifications for conducting work activities at the project site. It details the scope of the project, the planned work activities, the potential site hazards and the methods of controlling the hazards.

(b) The USAESCH OE Design Center is the only USACE office that is authorized to perform this work. The Safety Submission is prepared by USAESCH with input from other agencies and approved by the office of the Director of Army Safety. The Safety Submission is composed of the elements described below.

- Work Plan.
- SSHP.

- Supporting Plans.

(c) Chapter 7 presents a detailed discussion on the contents of the Safety Submission and chain-of-command for its approval. An outline of the Safety Submission may be found on the OE MCX website at <http://www.hnd.usace.army.mil/oew/index.htm> under contract DIDs, DID number OE-060.

(2) Additional precautions must also be met when performing intrusive activities on a RCWM site. In accordance with Army Regulations, intrusive activities will not be conducted unless:

- (a) A risk analysis shows that the benefits justify the costs.
- (b) The Army has the capability to handle the recovered RCWM.
- (c) The NOSE has been calculated and the general public is protected.
- (d) A tabletop exercise and pre-operational survey have been successfully completed.
- (e) Medical support arrangements have been made.
- (f) The Safety Submission has been approved.
- (g) Calculation of most-probable-munition (MPM) and the requisite minimum separation distance (MSD) will be calculated for the project site.

4-3. Types of Removal Actions.

a. General. The purpose of a RCWM response action is to reduce, in a timely, cost-effective manner, the risk to human health, safety and the environment resulting from past DOD activities. The reduction of risk to the public and the environment is achieved through a RCWM removal action. A removal action includes all activities involved in the cleanup or removal of RCWM and/or chemical agent contaminated media from the environment to include preliminary work (e.g., the Preliminary Assessment of Eligibility and Site Inspection) and the disposal of removed materiel. This term includes, in addition, without being limited to, security fencing or other measures to prevent, minimize, or mitigate damage to the public health or welfare or to the environment.

b. Selection of Removal Action Type.

(1) The selection of the appropriate type of RCWM removal action is based on an evaluation of the following site-specific features:

- (a) The nature of the RCWM contamination.

(b) The urgency/threat of release or potential release of RCWM.

(c) The timeframe required for initiating a removal action.

(2) Following the evaluation of the above features, either an emergency, time critical, or non-time critical removal action is selected. The USACE has been given execution authority at FUDS for Time Critical Removal Actions (TCRAs) and Non-Time Critical Removal Actions (NTCRAs) by the Army. EP 1110-1-18 discusses the circumstances under which each type of removal action is implemented.

4-4. Non-Time Critical Removal Actions for RCWM Projects.

a. This EP discusses the requirements for conducting a RCWM response project in accordance with the NTCRA process. NTCRAs are actions initiated in response to a release or threat of a release that poses a risk to human health or the environment where more than six months planning time is available. This EP will focus on the requirements for executing a NTCRA that are unique to RCWM projects. For those instances in which the NTCRA requirements for RCWM and OE are identical, a reference to EP 1110-18 is provided.

b. There are several formal steps required to execute a NTCRA. These steps are illustrated in Figure 4-2 and include:

(1) Preliminary assessment of eligibility (PAE) to determine property and project eligibility. Details for completing the PAE are provided in EP 1110-1-18.

(2) Site inspection (SI) to confirm the presence of RCWM at the site. Details for conducting the SI are provided in EP 1110-1-18.

(3) Approval Memorandum to authorize the execution of the Engineering Evaluation/Cost Analysis (EE/CA). The Approval Memorandum is discussed in EP 1110-1-18.

(4) EE/CA investigation to evaluate the site and risk, identify and evaluate removal alternatives, and select a removal action. The EE/CA is discussed in Chapter 5 of this document.

(5) Removal design to plan for the implementation of the removal action. The removal design is discussed in Chapter 6 of this document.

(6) Removal action. The removal action is discussed in Chapter 6 of this document.

(7) Project completion. The project completion process is discussed in Chapter 6 of this document.

c. During the NTCRA process, a TCRA may be conducted due to the discovery of an imminent danger. As shown in Figure 4-2, a TCRA may be initiated during the following phases

of a NTCRA: PAE, SI, EE/CA or removal action. Following the completion of the TCRA, the NTCRA will resume.

d. As illustrated in Figure 4-2, a decision of No DOD Action Indicated (NDAI) may be reached during the NTCRA process at the conclusion of the PAE, SI or EE/CA phases. At any time during the RCWM response process, the RCWM project team, in consultation with the OC supporting the OE MCX, may propose that a removal action be conducted based on site-specific circumstances. If the removal action will be conducted with a planning period of less than six months, the lead agency must publish the Action Memorandum within 60 days of initiating the removal action. Any information gathered during this response action must be incorporated into the EE/CA document. The OE MCX should be contacted for further information about the circumstances in which a removal action may be appropriate during the RCWM response process.

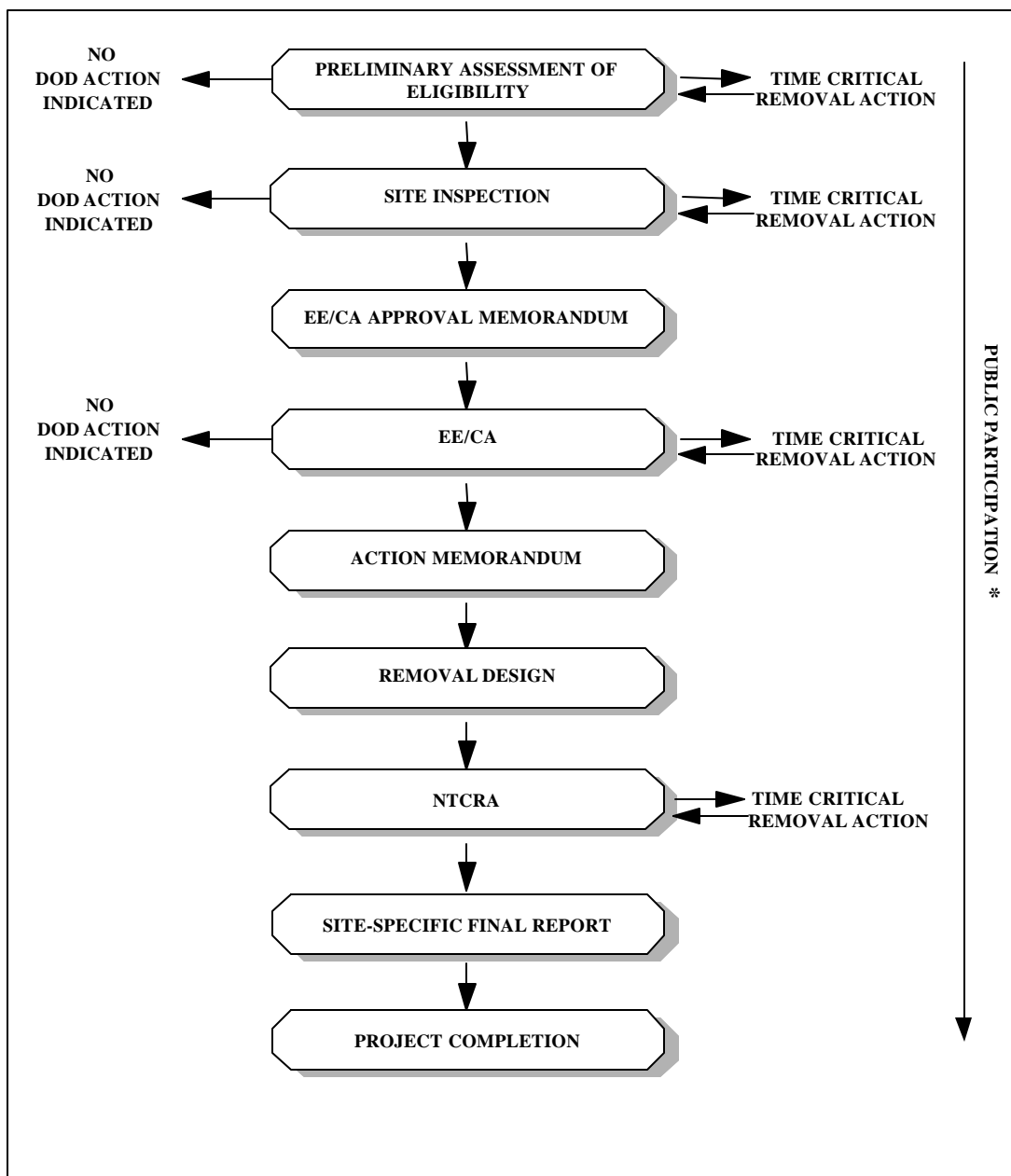


Figure 4-2. Non-Time Critical Removal Action Process. **

* Public Participation is an integral component of the NTCRA process.

**Additional removal actions may occur at any time depending on the exigencies of site conditions.